

JUDGMENT OF WORKING OF THE PRODUCER 85

These two values differ by 88 calories, or only a little more than 1 per cent.

In reality the gas possessed a combustible value of 8,118 calories, attaining, thus one might say, almost that theoretically necessary, and therefore one may regard it as properly made. Nevertheless let the example be still further calculated out.

It is of interest first to ascertain the composition of the distillation gas. The content of hydrocarbon is determinable as

C-poor gas.

(Irrillio.st Jus.

From () "7 « J cubic, motor II cmos 0-7, J XO-IJ, " 0-Uf > cubic motor (1114 »

From 0-77 cubic metre II com OH 0*77x0*27=0*21 cubic motor (M\i

(Actually, however, only (MJ) cubic motor (?IIa l VVUH pnwnfc.)

Now let it be assumed in this CUHO that not more were present. The distillation gas is thus at all events more similar to the G-poorest than the C-richest and therefore it is only required to be found from the former assumption.

There is in the distillation gas (i . . . : • 0*77 cubic motor Present as 011 ^

(Hi) corrodpondin ^- to free HJ •• (KJ8

Thus free H in distillation gas . . . i ~ " 0* « M) cubic in < » tro

Further, from formula (2(5), there must be about approximately

C0a O-OaxO'77-:0-(>2 cubic motor r<)a OO ()'07xO-77 ()-;Kr> „ (10

N () • () « x 0-77 0-02 „ N

so that the total distillation gas is C0aO'OJ) cubic inetr< ^ + 00 0'05 cubic metre + CIIi 019 cubic metre+11 01)1) cubic motor + N 0-03 cubic metre. If one deducts that gas from the total gas, "steam-air"1 gas

must remain.

flo* c;o.

Total ^as , . . 0-UJ

Loss distillation gas . (HKJ () • () ; > 0-19 <) • ; «) 0-<KJ

Balance steam-air gas () • ! () 1-49 — 0-28 2*64

1 Were actually OmHn present also, HO for « ? (' 5 m I I w f y () H 4 , in the gas analysis the following calculation of tin; content of hydrocarbonH in the* ^ « WM must be taken as

2 ^ + y cubic met-nsw, and the content of free H in the distillation gas be taken as 0'77 — 2 Oc-fy).